

**NUCLEAR REGULATORY  
COMMISSION****[Docket No. 50-271]****In the Matter of Vermont Yankee  
Nuclear Power Corporation (Vermont  
Yankee Nuclear Power Station);  
Exemption****I**

The Vermont Yankee Nuclear Power Corporation (VYNPC, the licensee) is the holder of Facility Operating License No. DPR-28, which authorizes operation of the Vermont Yankee Nuclear Power Station (the facility) at power levels no greater than 1593 megawatts thermal. The facility is a single-unit boiling-water reactor located at the licensee's site in Windham County, Vermont.

The license provides, among other things, that the Vermont Yankee Nuclear Power Station is subject to all rules, regulations, and orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

**II**

On November 19, 1980, the Commission published a revised Section 10 CFR 50.48 and a new Appendix R to 10 CFR Part 50 regarding fire protection features of nuclear power plants. The revised Section 50.48 and Appendix R became effective on February 17, 1981. Section III of Appendix R contains 15 subsections, lettered A through O, each of which specifies requirements for a particular aspect of the fire protection features at a nuclear power plant.

Sections III.G and III.L are the subject of the licensee's exemption request. Section III.G.3 specifies that fire detection and suppression be installed in areas using alternative safe shutdown. Low fire loadings and fire paths clear of combustibles in fire zones RB-1, RB-2, RB-3, and RB-4 diminish the importance of full fire detection and suppression capability in these fire zones. Section III.L.1.(c) requires that alternative and dedicated shutdown capability be able to achieve and maintain hot shutdown. Use of the automatic depressurization system (ADS), which is proposed by the licensee, requires cooling below hot shutdown temperatures, contrary to Section III.L.1.(c). Section III.L.2.b requires that coolant level be maintained above the top of the core, which is not possible with the licensee's proposed use of the ADS and low pressure injection systems (either core spray [CS] or low-pressure injection

system) to achieve and maintain hot shutdown.

The licensee requested an exemption from these requirements to allow the use of the ADS in conjunction with low-pressure injection systems as a means of achieving post-fire safe-shutdown conditions in fire zones RB-1, RB-2, RB-3, and RB-4 when offsite power is not available.

Section III.L.3 requires that alternative shutdown capability accommodate conditions where offsite power is not available for 72 hours. Onsite power can be restored to service in 30 minutes. Two offsite power sources exist in addition to the Vernon tie-line, which can be placed in service in 10 minutes. Without the Vernon tie-line, which is actually off site, the plant cannot accommodate conditions in the first 30 minutes following loss of offsite power.

The licensee requested an exemption to allow the use of the Vernon tie-line as an alternative to the onsite emergency diesel generator for fire events involving the control room, the cable spreading room, and fire zones RB-1, RB-2, RB-3, and RB-4 when offsite power is not available.

**III**

By letter dated April 4, 1996, as supplemented by letters dated May 21, 1996, November 4, 1996, December 13, 1996, January 8, 1996 (sic [1997]), January 15, 1997, February 19, 1997, May 16, 1997, and August 7, 1997, VYNPC, the licensee for Vermont Yankee, requested exemptions from certain technical requirements of Section III.G and Section III.L of Appendix R to 10 CFR Part 50.

The licensee requested exemptions (1) from the technical requirements of Section III.G.1.a and Section III.L.2 of Appendix R to allow the use of the ADS in conjunction with low-pressure injection systems (either CS or low-pressure coolant injection [LPCI]) as a means of achieving post-fire safe shutdown conditions in reactor building fire zones RB-1, RB-2, RB-3, and RB-4; (2) from the technical requirements of Section III.L.3 of Appendix R to allow the use of the Vernon tie-line as an alternative to the onsite emergency diesel generator for fire events involving the control room, the cable spreading room, and fire zones RB-1, RB-2, RB-3, and RB-4 when offsite power is not available; and (3) from the technical requirements of Section III.G.3 of Appendix R to the extent that it requires that fire detection and fixed fire suppression be provided in areas for which an alternative safe-shutdown capability is provided for fire zones RB-1, RB-2, RB-3, and RB-4.

On the basis of the NRC staff's evaluation, and contingent on the installation of additional fire detection capability (as the licensee committed to in its submittal of January 15, 1997, and May 16, 1997), the staff concluded that the detection and suppression capabilities for fire zones RB-1, RB-2, RB-3, and RB-4 are adequate to protect against fire hazards in the zones. The staff concluded further that a postulated fire in reactor building fire zones RB-1, RB-2, RB-3, and RB-4 would not prevent the operators from achieving and maintaining safe shutdown. Therefore, contingent on the installation of the additional fire detection capability in fire zone RB-4, the licensee should be granted an exemption from Section III.G.3 of Appendix R to 10 CFR Part 50 for reactor building fire zones RB-1, RB-2, RB-3, and RB-4.

On the bases of the technical evaluation contained in the appended Brookhaven National Laboratory (BNL) technical evaluation report (TER), and the NRC staff's evaluation of the Vermont Yankee fire protection capabilities, the staff concluded that the licensee's revised shutdown strategy for reactor building fire zones RB-1, RB-2, RB-3, and RB-4 (use of ADS with either LPCI or CS) and the redesignation of these fire zones as areas requiring an alternative shutdown capability provide an acceptable level of safe-shutdown protection. In addition, on the basis of the technical evaluation contained in the BNL TER, the staff concluded that the Vernon tie line provides an acceptable alternative to power from an onsite emergency diesel generator when normal sources of offsite power are not available for (1) a fire in the control room or the cable spreading room that forces control room evacuation and (2) a fire in reactor building fire zones RB-1, RB-2, RB-3, or RB-4 that requires the use of the alternative post-fire safe-shutdown strategy. Therefore, exemptions should be granted for Sections III.L.1.(c), III.L.2.b, and III.L.3 of Appendix R to 10 CFR Part 50.

**IV**

Pursuant to 10 CFR 50.12(a)(2), the Commission will not consider granting an exemption unless special circumstances are present. Item (ii) of the subject regulation includes special circumstances in which application of the subject regulation would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule.

The underlying purpose of Section III.G of Appendix R is to provide fire protection of equipment necessary for

safe-shutdown capability. On the basis of the NRC staff's evaluation above and contingent on the installation of additional fire detection capability (as the licensee committed to in its submittals of January 15, 1997, and May 16, 1997), the staff concluded that the detection and suppression capabilities for fire zones RB-1, RB-2, RB-3, and RB-4 are adequate to protect against the fire hazards in the zones. The staff concluded further that a postulated fire in reactor building fire zones RB-1, RB-2, RB-3, or RB-4 would not prevent the operators from achieving and maintaining safe shutdown. Therefore, contingent on the installation of the additional fire detection capability in fire zone RB-4, the staff concludes that an exemption should be granted from Section III.G.3 of Appendix R to 10 CFR Part 50 for reactor building fire zones RB-1, RB-2, RB-3, and RB-4. Accordingly, the Commission has determined that pursuant to 10 CFR 50.12(a)(2)(ii), special circumstances exist for the licensee's requested exemption in that imposition of the literal requirements of the regulation in these particular circumstances is not necessary to achieve the underlying purpose of Appendix R to 10 CFR Part 50.

The underlying purpose of Section III.L of Appendix R is to provide alternative and dedicated shutdown capability necessary in areas in which the fire protection features cannot ensure safe-shutdown capability in the event of a fire in that area. On the basis of the technical evaluation contained in the appended BNL TER and the NRC staff evaluation of the Vermont Yankee fire protection capabilities, the staff concluded that the licensee's revised shutdown strategy for reactor building fire zones RB-1, RB-2, RB-3, and RB-4 (use of ADS with either LPCI or CS) and the redesignation of these fire zones as areas requiring an alternative shutdown capability provide an acceptable level of safe-shutdown protection. In addition, on the basis of the technical evaluation contained in the appended BNL TER, the staff concluded that the Vernon tie-line provides an acceptable alternative to power from an onsite emergency diesel generator when normal sources of offsite power are not available for (1) a fire in the control room or the cable spreading room that forces control room evacuation and (2) for a fire in reactor building fire zones RB-1, RB-2, RB-3, and RB-4 that requires the use of the alternative post-fire safe-shutdown strategy. Therefore, the staff concludes that exemptions should be granted for

Sections III.L.1.(c), III.L.2.b, and III.L.3 of Appendix R to 10 CFR Part 50. Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a)(2)(ii), special circumstances exist in that the proposed exemptions to III.L.1(c), III.L.2.b and III.L.3 satisfy the underlying purpose of Appendix R to 10 CFR Part 50 and that imposition of the literal requirements of the regulation in these particular circumstances is not necessary to achieve the underlying purpose of Appendix R to 10 CFR Part 50.

Further, the staff has concluded that the requested exemption is authorized by law, will not present an undue risk to public health and safety, and is consistent with the common defense and security. Therefore, contingent upon the addition of additional fire detection capability (as the licensee agreed to in its submittals of January 15, 1997 and May 16, 1997) by December 31, 1997, and contingent upon one continuous fire watch monitoring both fire zones RB-3 and RB-4 until installation of the additional fire detection capability, the Commission hereby grants the request for exemption from the requirements of Sections III.G.3, III.L.1(c), III.L.2.b, and III.L.3 of Appendix R to 10 CFR Part 50 described in Section III above.

Pursuant to 10 CFR 51.32, the Commission has determined that the issuance of this exemption will have no significant impact on the quality of the human environment (62 FR 30356).

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 12th day of August 1997.

For The Nuclear Regulatory Commission.

**Samuel J. Collins,**

*Director, Office of Nuclear Reactor Regulation.*

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## NUCLEAR REGULATORY COMMISSION

[Docket No. 50-271]

### Vermont Yankee Nuclear Power Station; Notice of Withdrawal of Application for Amendment to Facility Operating License

The U.S. Nuclear Regulatory Commission (the Commission) has granted the request of Vermont Yankee Nuclear Power Corporation (the licensee) to withdraw its application dated May 12, 1989, as supplemented October 22, 1993, and April 15, 1994, for proposed amendment to Facility

Operating License No. DRP-28 for the Vermont Yankee Nuclear Power Station located in Vernon, Vermont. The proposed amendment would have revised the Technical Specifications pertaining to the anticipated transient without scram rule (10 CFR 50.62).

The Commission had previously issued a Notice of Consideration of Issuance of Amendment published in the **Federal Register** on June 28, 1989 (54 FR 27242). However, by letter dated July 25, 1997, the licensee withdrew the proposed change.

For further details with respect to this action, see the application for amendment dated May 12, 1989, as supplemented October 22, 1993, and April 15, 1994, and the licensee's letter dated July 25, 1997, which withdrew the application for license amendment. The above documents are available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, NW., Washington, DC, and at the local public document room located at the Brooks Memorial Library, 224 Main Street, Brattleboro, VT 05301.

Dated at Rockville, Maryland, this 12th day of August 1997.

For the Nuclear Regulatory Commission.

**Kahtan N. Jabbour,**

*Senior Project Manager, Project Directorate I-3, Division of Reactor Projects—I/II, Office of Nuclear Reactor Regulation.*

[FR Doc. 97-21899 Filed 8-18-97; 8:45 am]

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## NUCLEAR REGULATORY COMMISSION

[Texas License L03835]

### ProTechnics International, Inc.—Houston, Texas: Field Flood Tracer Study; Finding of No Significant Impact and Notice of Opportunity for a Hearing

The U.S. Nuclear Regulatory Commission is considering authorizing ProTechnics International, Inc. (ProTechnics) to conduct a field flood tracer study in an oil reservoir located at the NE Perry Unit, Noble County, Oklahoma near Stillwater, Oklahoma.

#### Environmental Assessment

##### Identification of the Proposed Action

The proposed action is authorizing ProTechnics to conduct a field flood tracer study using cobalt-60 and hydrogen-3 in an oil reservoir located at the NE Perry Unit, Noble County, Oklahoma, near the town of Stillwater, Oklahoma. ProTechnics, with offices in Houston, Texas, is authorized by the